

BIOGRAPHICAL SKETCH

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NAME Richard J. Youle	POSITION TITLE Section Chief, Biochemistry Section, Surgical Neurology Branch, NINDS, NIH		
EDUCATION/TRAINING (<i>Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.</i>)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
Albion College, Albion, Michigan Department of Biology, University of South Carolina	A.B. Ph.D.	1974 1977	Biology Biology

A. Positions and Honors

1974 - 1976 Teaching Fellow, University of South Carolina, Columbia, South Carolina
1976 - 1977 Research Assistant, Dr. Anthony Huang, University of South Carolina
1977 - 1982 Staff Fellow, Laboratory of Neurochemistry, NIMH, Bethesda, Maryland
1982 - 1984 Research Chemist, Laboratory of Neurochemistry, NIMH, Bethesda
1984 - 1988 Research Chemist, Surgical Neurology Branch, NINDS, Bethesda
1988 - Present Chief, Biochemistry Section, Surgical Neurology Branch, NINDS

1988 Pierce Immunotoxin Award
1992 NIH Director's Award
1998 Mentor Award, Inventor's Hall of Fame
2011 NIH Director's Award

B. Selected peer-reviewed publications (from 168).

- Narendra D, Tanaka A, Suen DF, Youle RJ. Parkin is recruited selectively to impaired mitochondria and promotes their autophagy. *J. Cell Biol.* 183:795-803, 2008.
- Suen D, Narendra DP, Tanaka A, Manfredi G, Youle RJ. Parkin overexpression selects against a deleterious mtDNA mutation in heteroplasmic cybrid cells. *Proc. Natl. Acad. Sci. USA* 107: 11835-40, 2010.
- Narendra DP, Jin S, Tanaka A, Suen DF, Gautier C, Shen J, Cookson M, Youle RJ. PINK1 is selectively stabilized on impaired mitochondria to trigger Parkin recruitment. *PLoS Biol.*, 8, e1000298, 2010.
- Jin SM, Lazarou M, Wang C, Kane LA, Narendra DP, Youle RJ. Mitochondrial membrane potential regulates PINK1 import and proteolytic destabilization by PARL. *J. Cell Biol.* 191: 933-942, 2010.
- Tanaka A, Cleland M, Shan S, Narendra DP, Suen DF, Karbowski M, Youle RJ. Proteasome and p97 mediate mitophagy and degradation of mitofusins induced by Parkin. *J. Cell Biol.* 191: 1367-1380, 2010.
- Benard G, Neutzner A, Peng G, Wang C., Livak F, Youle RJ, Karbowski M. IBRDC2, an IBR-type E3 ubiquitin ligase, is a regulatory factor for Bax and apoptosis activation. *EMBO J.* 29:1458-1471, 2010.
- Edlich F, Banerjee S, Suzuki M, Arnoult D, Cleland M, Wang C, Neutzner A, Tjandra N, Youle RJ. Bcl-xL retrotranslocates Bax from mitochondria into the cytosol. *Cell* 145: 404-116, 2011.
- Lazarou M, Jin SM, Kane L, Youle RJ. Role of PINK1 binding to the TOM complex and alternate intracellular membranes in recruitment and activation of the E3 ligase Parkin. *Dev. Cell* 22: 320-333, 2012.
- Fogel AI, Dlouhy B, Wang C, Ryu SW, Neutzner A, Hasson SA, Sideris DP, Abeliovich H, Youle RJ. Role of membrane association and Atg14-dependent phosphorylation in Beclin-1 mediated autophagy. *Mol Cell Biol.* 33:3675-3688, 2013.
- Lazarou M, Narendra DP, Jin SM, Tekle E, Banerjee S, Youle RJ. PINK1 drives Parkin self-association and HECT-like E3 activity upstream of mitochondrial binding. *J Cell Biol.* 21;200:163-72, 2013.
- Hasson SA, Kane LA, Yamano K, Huang C-H, Sliter DA, Buehler E, Wang C, Heman-Ackah SM, Hessa T, Guha R, Martin SE, Youle RJ. Genome-wide RNAi high-content screens identify regulators of Parkin upstream of mitophagy *Nature* 504: 291-295, 2013.
- Yamano K, Fogel, AI, Wang C, van der Bliek A, Youle RJ. Mitochondrial Rab GAPs govern autophagosome biogenesis during mitophagy. *eLife* 3:e01612, 2014.
- Kane LA, Lazarou M, Fogel AI, Li Y, Yamano K, Sarraf SA, Banerjee S, Youle RJ. PINK1 phosphorylates ubiquitin to activate Parkin E3 ubiquitin ligase activity. *J Cell Biol.* 205:143-53, 2014.